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Elite™ Cabinet/Rack User's Manual

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1. Specifications

Table 1-1 lists specifications for the cabinet shown in Figures 1-1 through 1-4.

Table 1-1.

| Frame Part Number Prefix | Height | Overall Height* | Width | Depth | RU | Rail (Min.–Max.) Depth | Side Panel Height | Side Panel Depth | Rear Bottom Cable Access Hole | Top Corner Knockouts |
|-----------------------------|--------|-----------------|-------|-------|----|---------------------------|----------------------|---------------------|-------------------------------------|-------------------------|
| EC24U3032 | 48" | 49.974" | 30" | 32" | 24 | 6"–30" | 43.657" | 19.116" | 14.5" x 4" | included |
| EC24U2442 | 48" | 49.974" | 24" | 42" | 24 | 6"–34.5" | 43.657" | 29.116" | 16.5" x 5.25" | not included |
| EC38U3032 | 72" | 73.974" | 30" | 32" | 38 | 6"–30" | 67.657" | 19.116" | 14.5" x 4" | included |
| EC42U2442 | 79" | 80.974" | 24" | 42" | 42 | 6"–34.5" | 73.657" | 29.116" | 18.5" x 5.25" | not included |
| EC42U3042 | 79" | 80.974" | 30" | 42" | 42 | 6"–34.5" | 73.657" | 29.116" | 22.5" x 5.25" | included |
| EC45U2436 | 84" | 85.974" | 24" | 36" | 45 | 6"–34" | 79.657" | 23.116" | 8.5" x 4" | not included |
| EC45U3032 | 84" | 85.974" | 30" | 32" | 45 | 6"–30" | 79.657" | 19.116" | 14.5" x 4" | included |
| EC45U3036 | 84" | 85.974" | 30" | 36" | 45 | 6"–34" | 79.657" | 23.116" | 14.5" x 4" | included |
| EC45U2442 | 84" | 85.974" | 24" | 42" | 45 | 6"–34.5" | 79.657" | 29.116" | 18.5" x 5.25" | not included |
| EC45U3042 | 84" | 85.974" | 30" | 42" | 45 | 6"–29" | 79.657" | 29.116" | 22.5" x 5.25" | included |

*Height with casters

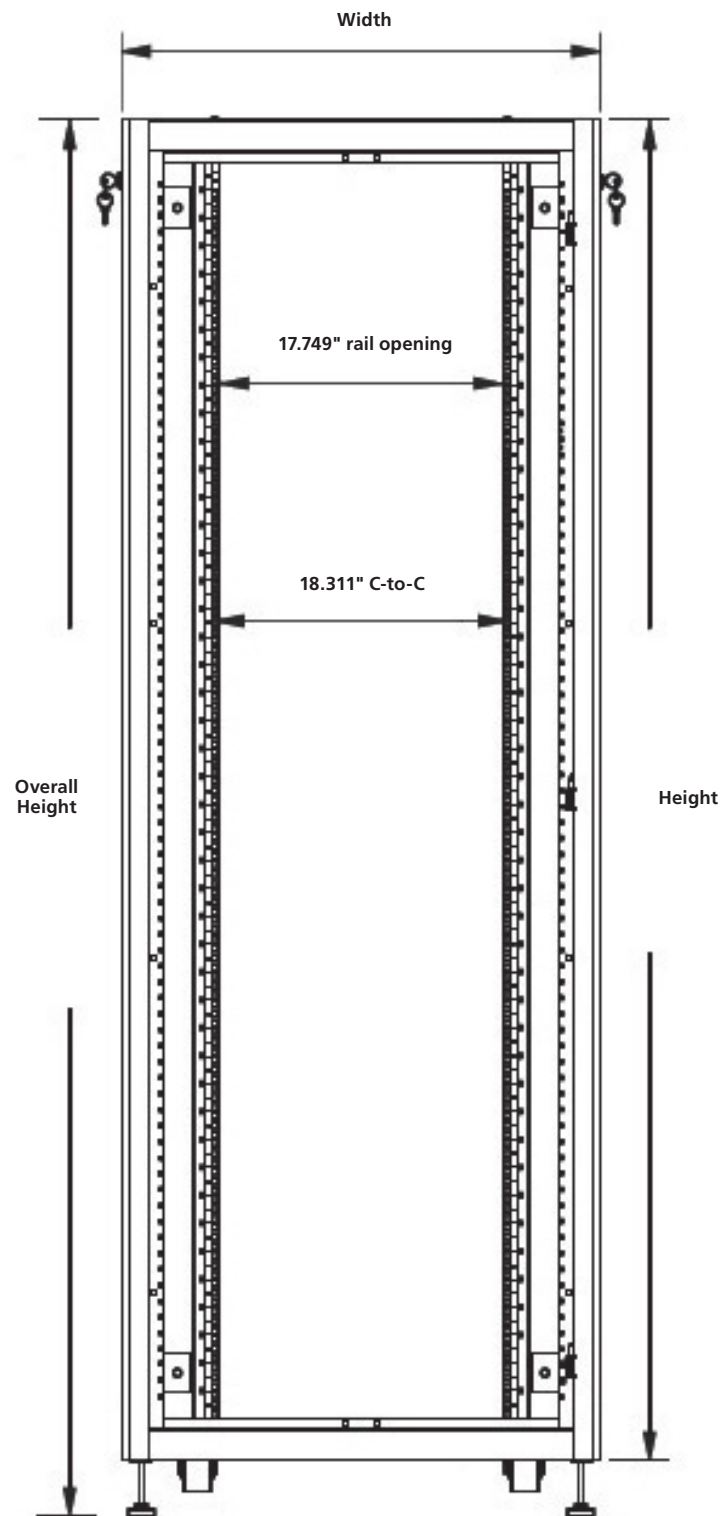


Figure 1-1. Front view (doors removed for clarity).

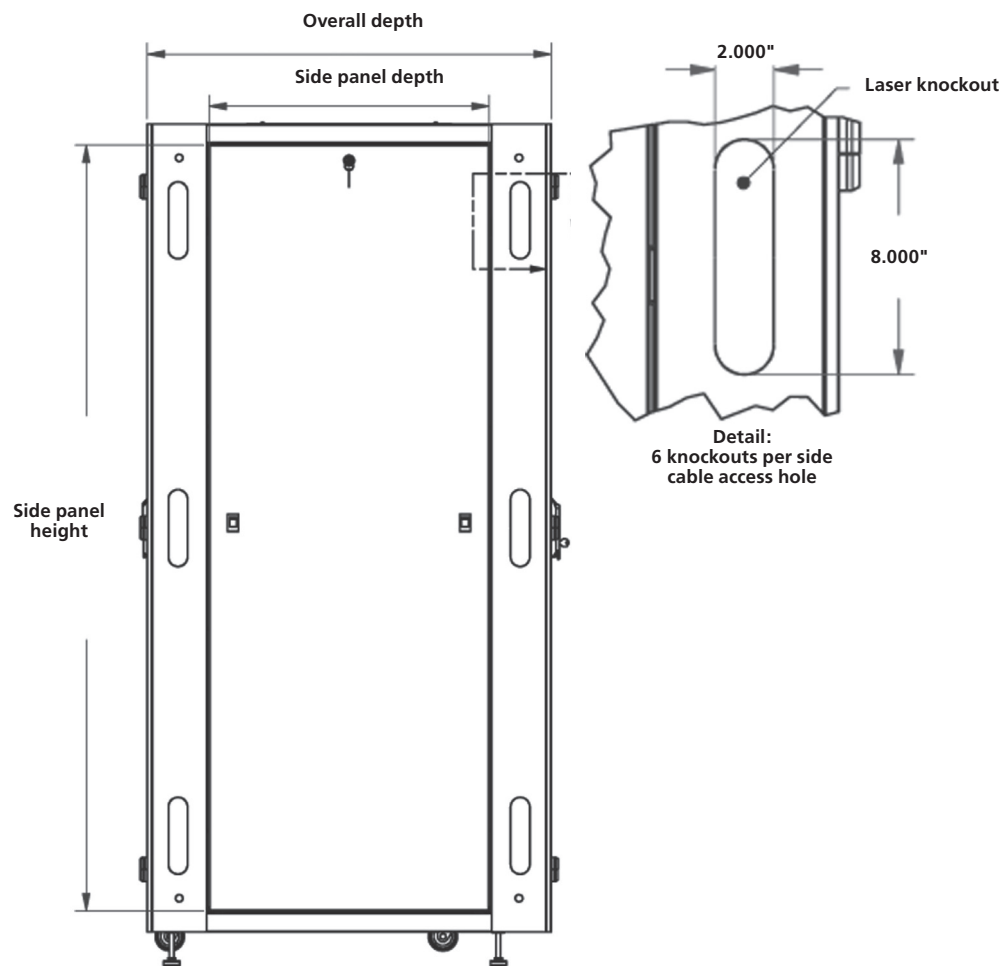


Figure 1-2. Cabinet shown with side panel.

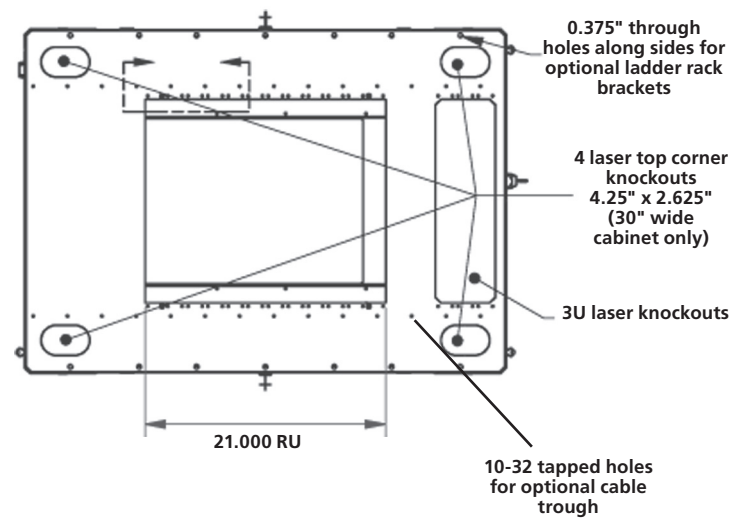


Figure 1-3. Top view.

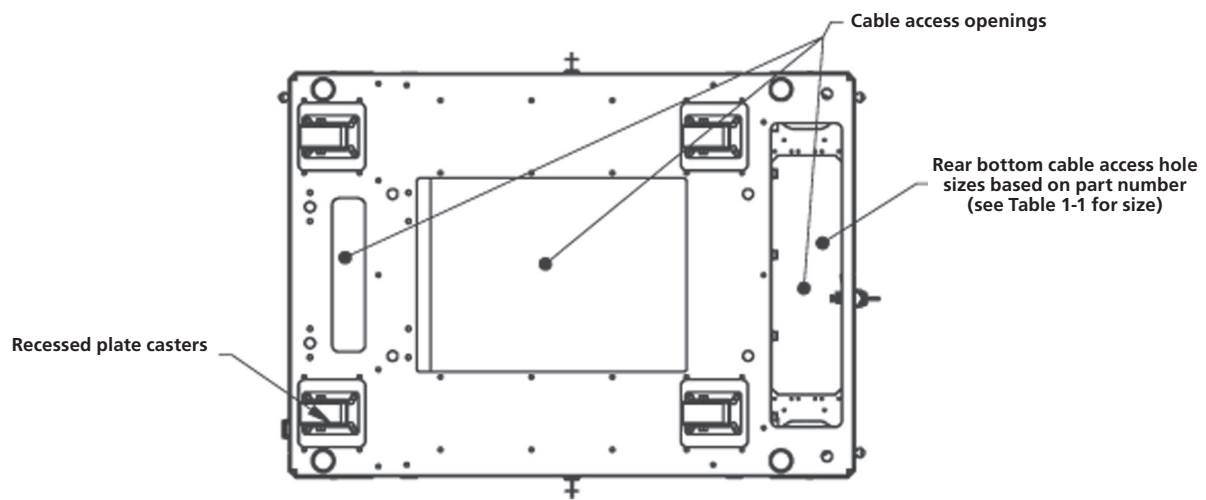


Figure 1-4. Bottom view, 30" cabinet.

2. Overview

2.1 Introduction

The Elite Cabinet is a fully assembled, ready-to-use cabinet that’s customized to your specifications. It ships completely assembled with its front and rear doors unlocked, with two keys and this user’s manual.

2.2 Features

Your custom cabinet features your choice of top panels, rail type, front door type, rear door type, side panel, top panel, anti-tip, and lock type. The components of the cabinet you received are the ones you ordered.

- The top panel is either solid, vented, 1-fan, 2-fan, 3-fan, 6-fan, or no top panel.
- The front and rear doors are split fan, plexi, solid, split high flow mesh, or high flow mesh.
- The side panels are either solid or vented.
- The cabinets are available in four overall heights, and 10 overall frame sizes. See Table 2-1.

2.3 What’s Included

Your package should include the following items. If anything is missing or damaged, please contact Black Box Technical Support at 724-746-5500.

- Cabinet with square hole rails
 - (50) cage nuts and (50) screws
 - (4) pairs of keys
 - 60" of grommet material
 - This user’s manual
- OR
- Cabinet with tapped rails
 - (50) 10-32 screws
 - (4) pairs of keys
 - 60" of grommet material
 - This user’s manual

2.4 Part Number Description/Cabinet Components

The part number on your package corresponds to the options you chose when ordering your cabinet (See Figure 2-1 and Tables 2-1 through 2-8). The first 9 characters in the product code represent the cabinet’s size. The 10th character describes the rail type (square or 10-32 tapped rails). The 11th and 12th characters describe the front and rear doors. The 13th character represents the side panel. The 14th character describes the top. The 15th character tells you whether or not the cabinet is anti-tip or no anti-tip. The 16th character describes the lock type (keyed, combination, or none).

Figures 2-2 through 2-6 illustrate the custom possibilities for your cabinet. Tables 2-1 through 2-7 list these options.

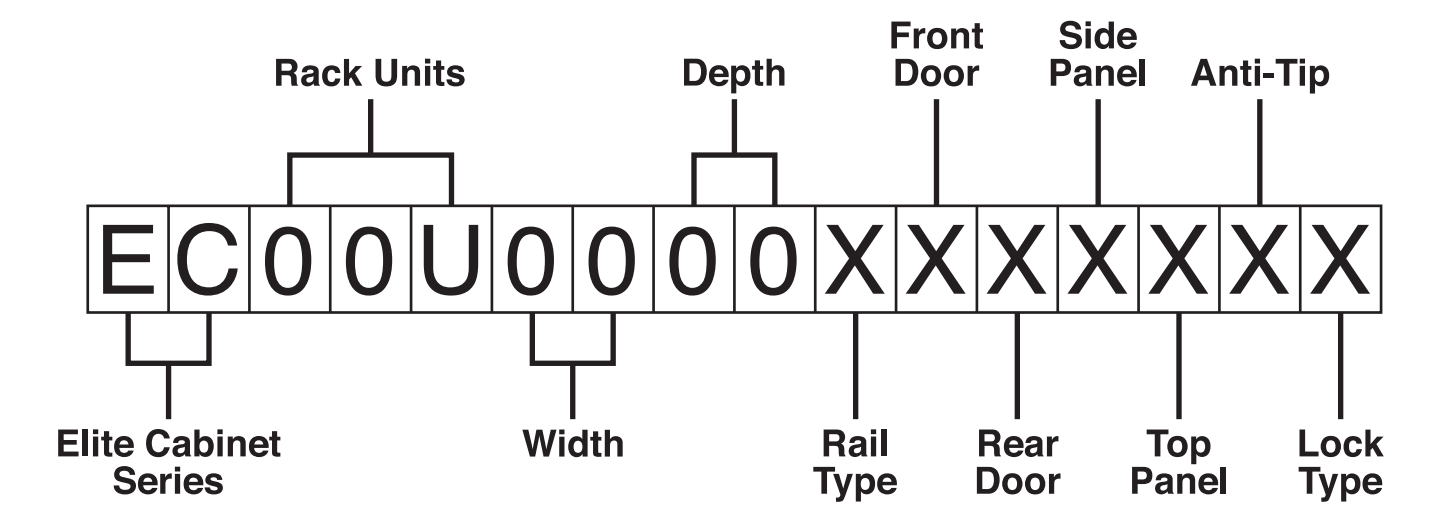


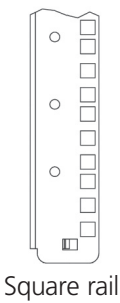
Figure 2-1. Elite Cabinet part number system.

Table 2-1. Elite Cabinet Size Options

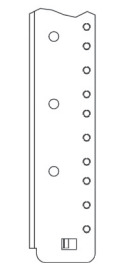
| | |
|-----------------|--------------------------|
| EC24U3032 | 24U (48"H x 30"W x 32"D) |
| EC24U2442 | 24U (48"H x 24"W x 42"D) |
| EC38U3032 | 38U (72"H x 30"W x 32"D) |
| EC42U2442 | 42U (79"H x 24"W x 42"D) |
| EC42U3042 | 42U (79"H x 30"W x 42"D) |
| EC45U2436 | 45U (84"H x 24"W x 36"D) |
| EC45U3032 | 45U (84"H x 30"W x 32"D) |
| EC45U3036 | 45U (84"H x 30"W x 36"D) |
| EC45U2442 | 45U (84"H x 24"W x 42"D) |
| EC45U3042 | 45U (84"H x 30"W x 42"D) |

Table 2-2. Rail type options.

| | |
|-----------|--------------------|
| Rail Type | |
| S | square rails |
| T | 10-32 tapped rails |



Square rail



Tapped rail

Figure 2-2. Rail type options: square or tapped.

Table 2-3. Front Door or Rear Door.

| | |
|---|-----------------|
| N |None |
| S |Solid |
| M |Mesh |
| D |Split Mesh |
| P |Plexi |
| F |Fan Door |

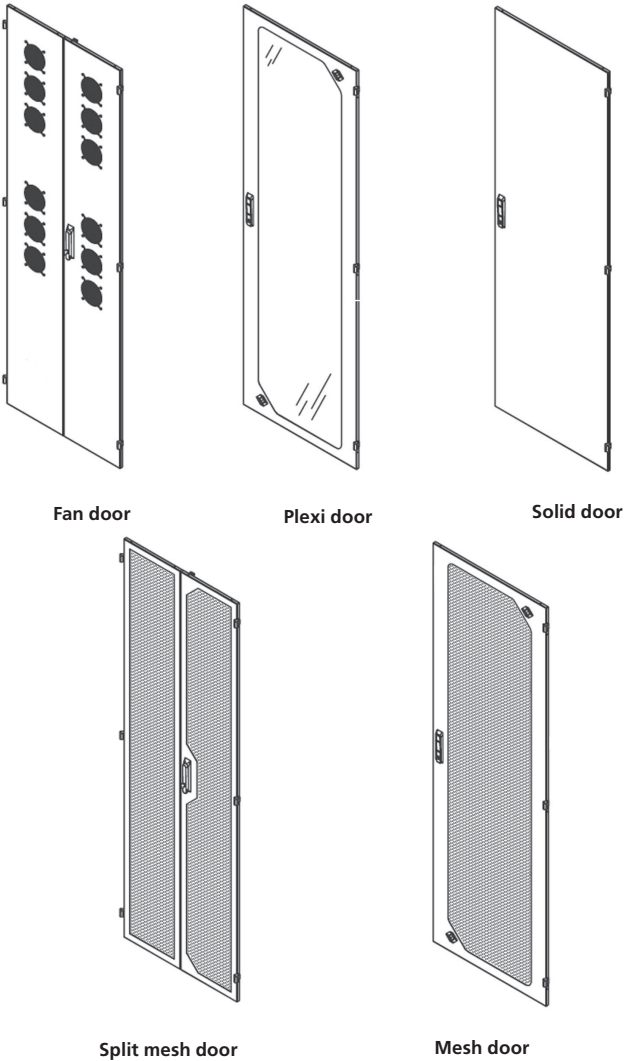


Figure 2-3. Door options.

Table 2-4. Side Panel options.

| | |
|---|--------------|
| N |None |
| S | Solid |
| M | Vented |

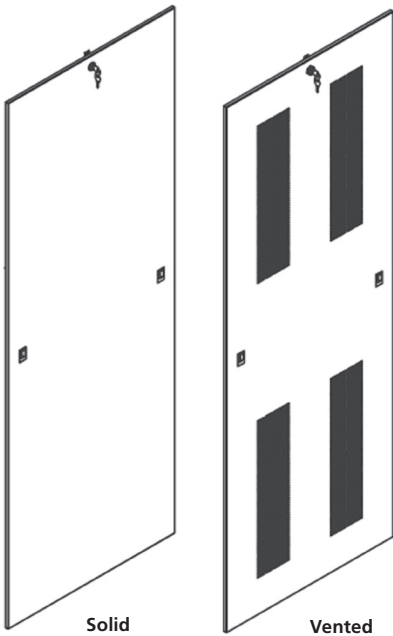


Figure 2-4. Side Panel options.

Table 2-5. Top options.

| | |
|---|---------------------------------------|
| N |None |
| S | Solid |
| M | Vented |
| C | Chimney top |
| 3 | 3 fan unit (4" fans, 225 CFM) |
| 6 | 6 fan unit (4" fans, 450 CFM) |
| 1 | 1 fan unit (10" fan, 550 CFM) |
| 2 | 2 fan unit (10" fans, 1100 CFM) |

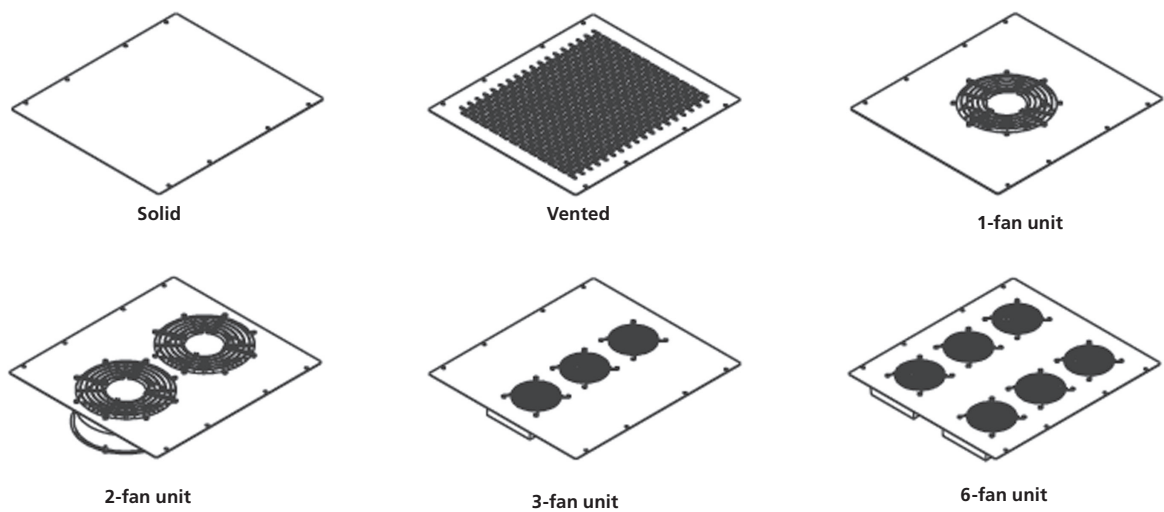


Figure 2-5. Top panel options.

Table 2-6. Anti-Tip.

| | | |
|---|-------|-----|
| Y | | Yes |
| N | | No |

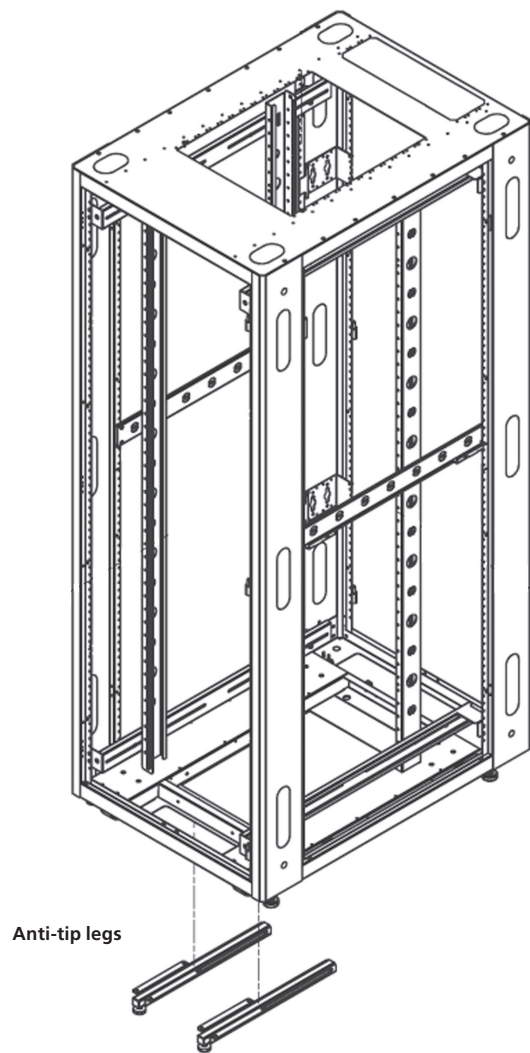


Fig 2-6. Anti-tip legs installed on bottom of cabinet.

Table 2-7. Lock Type.

| | |
|---|------------------|
| K |Keyed |
| C |Combination |
| N |None |

2.5 Optional Accessories

This section lists optional accessories not included in the cabinet's base part number. (These optional accessories must be ordered separately, and are not discussed in detail in this manual, since they have their own manual that ships with the accessory.)

General accessories:

- RM624 (padlock with key)
- RM626 (padlock)

Horizontal cable management:

- ECFB32 (front to back cable management for 30"W x 32"D cabinets)
- ECFB36 (front to back cable management for 30"W x 36"D cabinets)
- ECFB42 (front to back cable management for 30"W x 42"D cabinets)
- ECHLB32 (Horizontal Lacing Bar for 32"D cabinets)
- ECHLB36 (Horizontal Lacing Bar for 36"D cabinets)
- ECHLB42 (Horizontal Lacing Bar for 42"D cabinets)

Vertical Cable Management:

- ECVLB48 (Vertical Lacing Bar, 48")
- ECVLB72 (Vertical Lacing Bar, 72")
- ECVLB79 (Vertical Lacing Bar, 79")
- ECVLB84 (Vertical Lacing Bar, 84")

ECVCM Vertical Cable Management (19.25" segments)

- 2 lengths for 48"H
- 3 lengths for 72"H and 79"H
- 4 lengths for 84"H

Additional rails

Extra set of rails, M6

- EC48M6 (extra pair of M6 rails for 48"H cabinet)
- EC72M6 (extra pair of M6 rails for 72"H cabinet)
- EC79M6 (extra pair of M6 rails for 79"H cabinet)
- EC84M6 (extra pair of M6 rails for 84"H cabinet)

Extra sets of rails, 10-32

- EC48T (extra pair of tapped rails for 48"H cabinet)
- EC72T (extra pair of tapped rails for 72"H cabinet)
- EC79T (extra pair of tapped rails for 79"H cabinet)
- EC84T (extra pair of tapped rails for 84"H cabinet)

23" Mounting Kit for 30" wide cabinets

- EC23MK32 (23" mounting kit for 30"W x 32"D cabinet)
- EC23MK36 (23" mounting kit for 30"W x 36"D cabinet)
- EC23MK42 (23" mounting kit for 30"W x 42"D cabinet)

Bottom Panels and Filter Kits

Solid Bottom Panel

- ECBSKL2436 (Solid Bottom for 24"W x 36"D BB EC Cabinet)
- ECBSKL2442 (Solid Bottom for 24"W x 42"D BB EC Cabinet)
- ECBSKL3032 (Solid Bottom for 30"W x 32"D BB EC Cabinet)
- ECBSKL3036 (Solid Bottom for 30"W x 36"D BB EC Cabinet)
- ECBSKL3042 (Solid Bottom for 30"W x 42"D BB EC Cabinet)

Solid Rear Bottom Panel

- ECBKS24 (Solid Rear Bottom for 24"W BB EC Cabinet)
- ECBKS30 (Solid Rear Bottom for 30"W BB EC Cabinet)

Filter Kit Bottom

- ECBFKL2436 (Filter Kit Bottom for 24"W x 36"D BB EC Cabinet)
- ECBFKL2442 (Filter Kit Bottom for 24"W x 42"D BB EC Cabinet)
- ECBFKL3032 (Filter Kit Bottom for 30"W x 32"D BB EC Cabinet)
- ECBFKL3036 (Filter Kit Bottom for 30"W x 36"D BB EC Cabinet)
- ECBFKL3042 (Filter Kit Bottom for 30"W x 42"D BB EC Cabinet)

Brush Rear Grommet Kit for small opening in the bottom

- ECBBGKS24 (Brush Rear Grommet Kit for 24"W BB EC Cabinet)
- ECBBGKS30 (Brush Rear Grommet Kit for 30"W BB EC Cabinet)

Brush Rear Grommet Kit for large opening in the bottom

- ECBGKL2436 (Brush Rear Grommet Kit for 24"W x 36"D Cabinet)
- ECBGKL2442 (Brush Rear Grommet Kit for 24"W x 42"D Cabinet)
- ECBGKL3032 (Brush Rear Grommet Kit for 30"W x 32"D Cabinet)
- ECBGKL3036 (Brush Rear Grommet Kit for 30"W x 36"D Cabinet)
- ECBGKL3042 (Brush Rear Grommet Kit for 30"W x 42"D Cabinet)

Top Panel Options

Chimney and Chimney Fan

- ECTOPCHIM (Chimney for small opening with solid top for large opening)
- ECTOPCHIMFT (Fan Tray for ECTOPCHIM)

Cable Trough

- EC24WTCTK (Top Cable Trough Kit, 24" Wide)
- EC30WTCTK (Top Cable Trough Kit, 30" Wide)

Conduit Knockout Panel

- ECP3U (Panel with circular knockouts for 3U opening)

Cable Management—Brush Grommet Kit

- ECBGK3U (Brush Grommet Kit for 3U opening)

Waterfall Brackets for 3U top opening

- ECW3U (Waterfall for top 3U [with cable pass thru])

Ladder Rack

- EC24LR (24"W Ladder Rack Bracket)

Misc.

- ECLK (Light Kit)
- ECPDUMK (Vertical PDU 19" Mounting Kit, 0 RMU)
- ECAT1 (Anti-Tip Legs)
- ECNH (Networking Hardware)

2.6 The Elite Cabinet's Optional Accessories

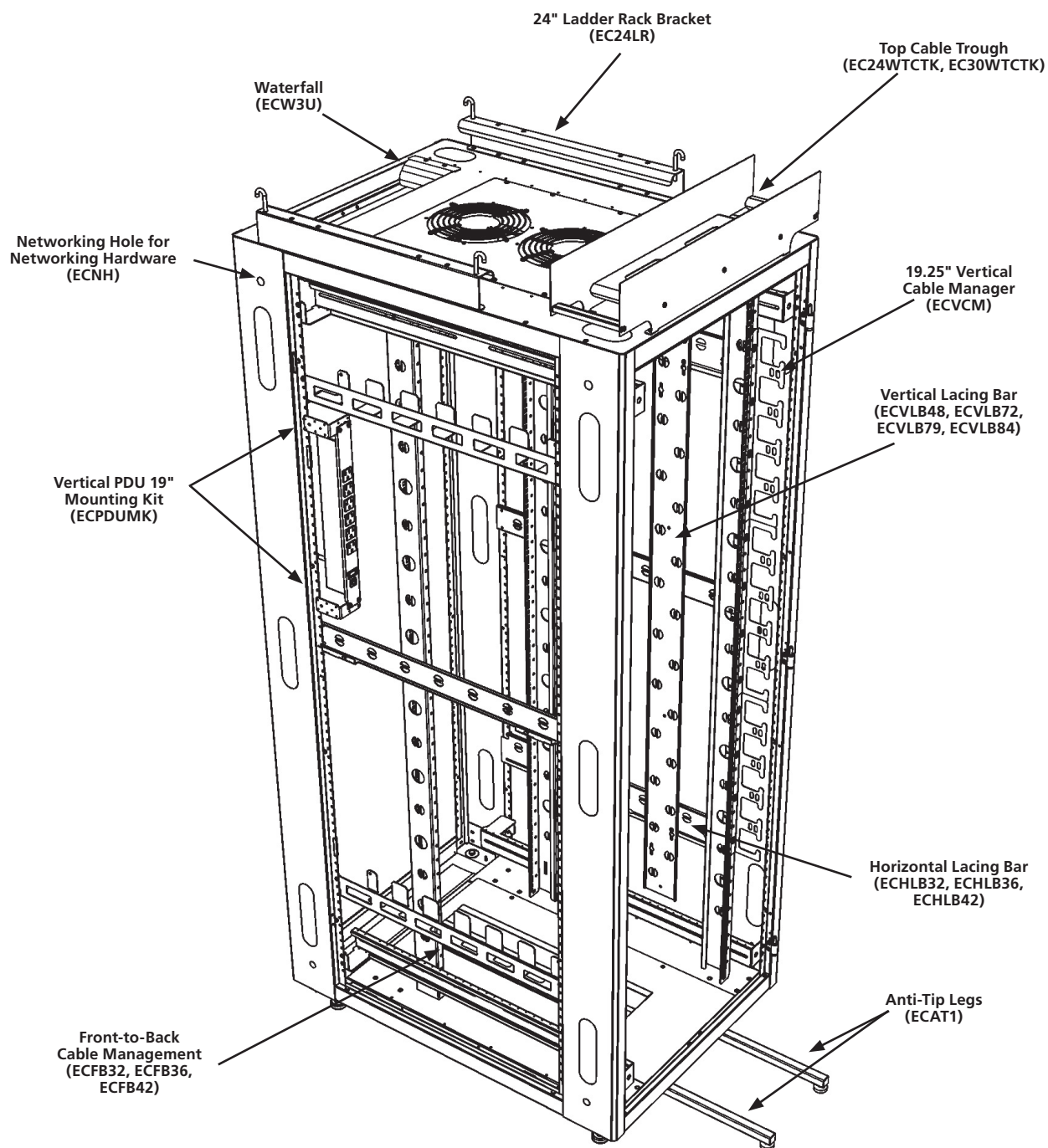


Figure 2-7. The Elite Cabinet with optional accessories.

3. Changing the Cabinet's Configuration

3.1 Casters and Leveling Legs

CAUTION: To install casters or levelers, you must tip the enclosure onto its side. The enclosure is very heavy, so you may need several people to lay it on its side. Do not lay the enclosure on its front or back. This may damage the door and hinges.

HINT: Removing the doors and side panels before tipping will help reduce the enclosure's weight and help prevent damage to the side panel locks.

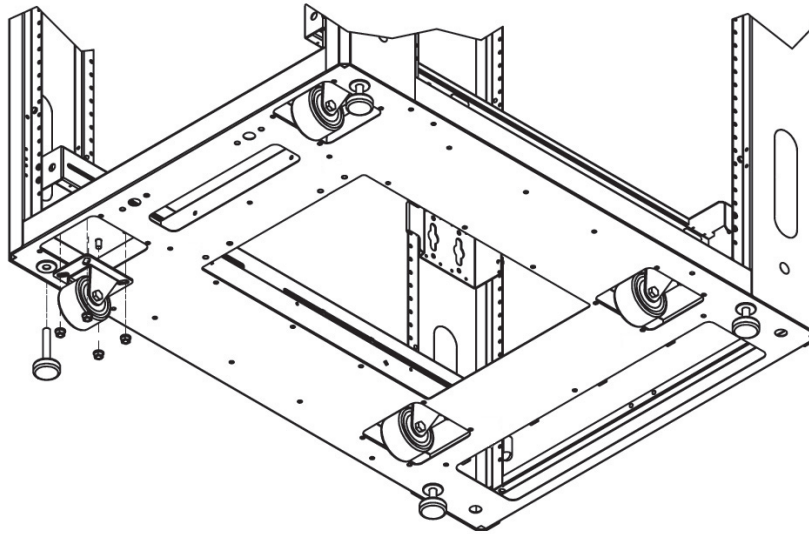


Figure 3-1. Casters and levelers.

Caster Mounting:

1. Tip the enclosure and lay it onto its side.
2. Place a caster assembly over the four threaded studs located in one of the recessed areas in the bottom of the enclosure.
3. Thread one $\frac{5}{16}$ -18 hex nut onto each of the four studs and tighten with a $\frac{1}{2}$ " socket or nut driver.
4. Repeat steps 2 and 3 for the three remaining casters.

Adjustable Leveler Mounting:

1. Tip the enclosure and lay it onto its side.
2. Place a leveling leg into one of the four $\frac{1}{2}$ "-13 threaded holes found at the corners of the enclosure.
3. Using a $\frac{3}{4}$ " open-end wrench, tighten the levelers to the desired position.
4. Repeat steps 2 and 3 for the remaining levelers.

3.2 Door Handle Operation

The Elite enclosure ships with its front and rear doors unlocked, and includes two keys.

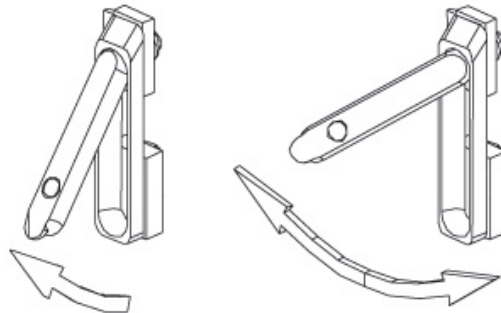


Figure 3-2. Door handle drawings.

3.3 Removing or Changing the Doors

3.3.1 Removing or Installing a Door

Open the door beyond 90°, then grasp the door with both hands and carefully lift it upward. When the door is free of all three hinge pins, pull the door away from the enclosure. To attach the door, align all three door hinges to their respective hinge pins on the enclosure and slowly slide the door down until seated.

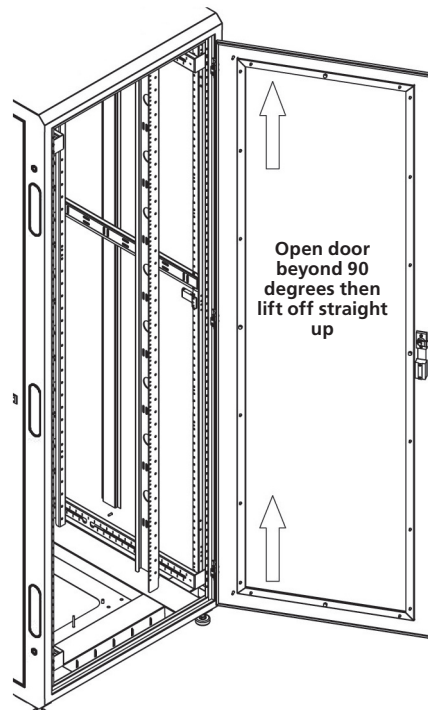


Figure 3-3. Removing or installing a door.

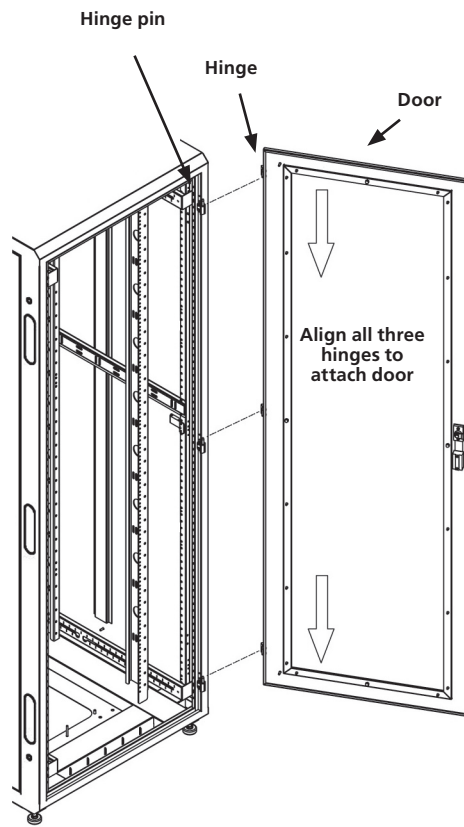


Figure 3-4. Attaching a door.

3.3.2 Reversing a Door

The front and rear doors are installed right-hand hinge as standard from Black Box. Removing the hinges allows you to reverse the door by flipping them over and reinstalling the hinges using the universal mounting holes. All the enclosure frames and doors can be hinged right- or left-hand. The handle can be reversed along with the hinging. See Figure 3-5.

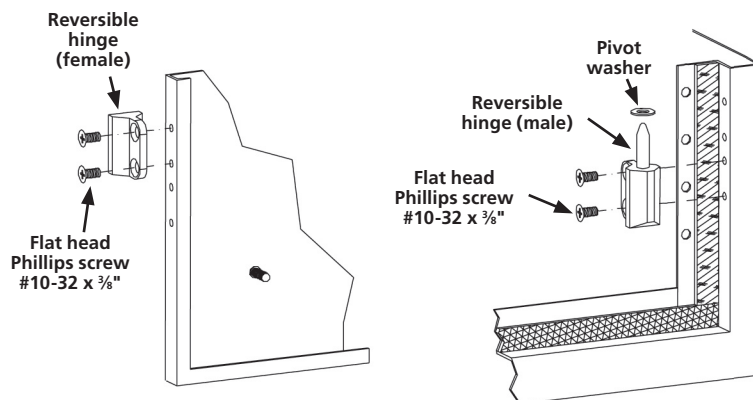


Figure 3-5. Reversing a door.

3.4 Removing or Installing a Side Panel

The side panels connect to the enclosure frame with two quick-release latches and a keyed lock. To remove the side panel, unlock the panel and press the quick-release latches down and release them. Then tilt the top of the side panel out slightly and lift the side panel up a couple of inches until it is free. To install the side panel, reverse the process. Make sure the slots on the side panel engage with the two tabs at the bottom of the frame.

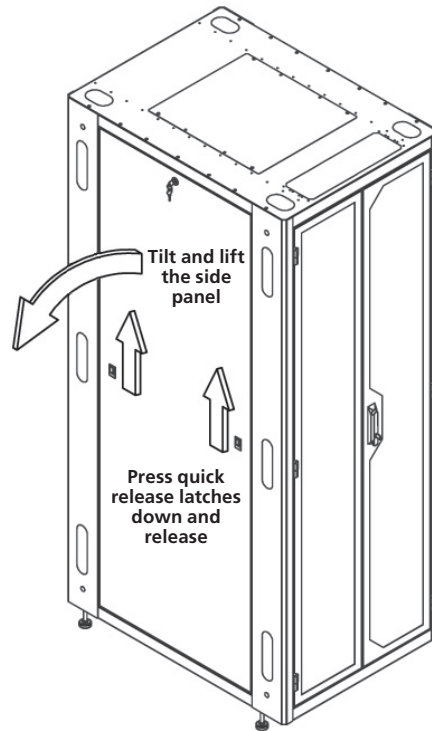


Figure 3-6. Removing or installing a side panel (30" wide cabinet shown).

3.5 Top Panel and Mounting Options

The top panel of the enclosure is installed at Black Box. To remove the top panel, remove the four #10-32 x 1" large Phillips pan-head screws. Then simply lift the top panel up and off. There are six versions of top panels (solid, perforated, 1-fan, 2-fan, 3-fan, 6-fan).

The top panel provides 12U of standard rackmount space that you can customize. When one of the standard top panels is not used, you can use this area to mount patch panels, additional cable management, PDUs, 19" fan panels, and other lightweight items.

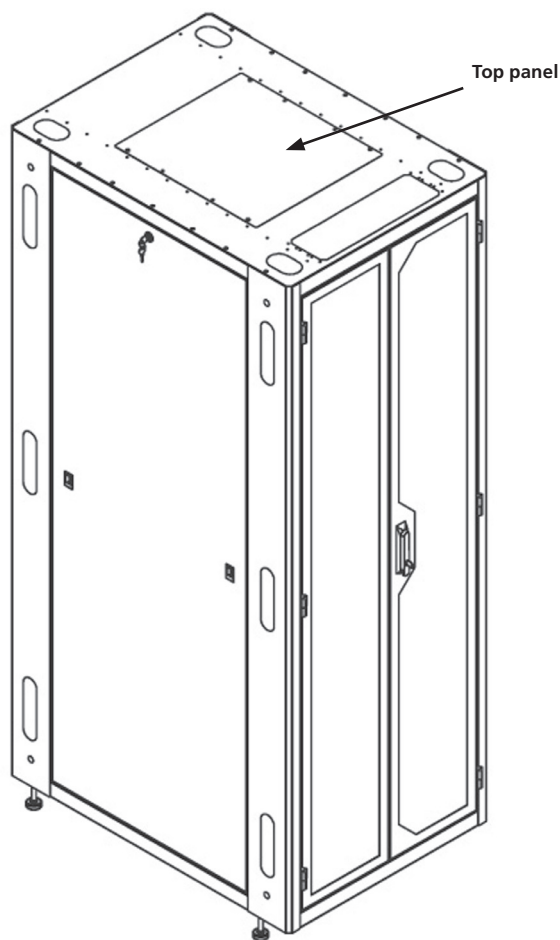


Figure 3-7. Top panel mounting (30" wide cabinet shown).

3.6 Adjusting the Rails

Mounting Rails

The vertical mounting rails are installed with all standard frames. You can configure the 30" wide enclosure to 23" EIA mounting with an optional replacement bracket set. Extra sets of both square hole rails (M6) and tapped #10-32 rails are available as accessories.

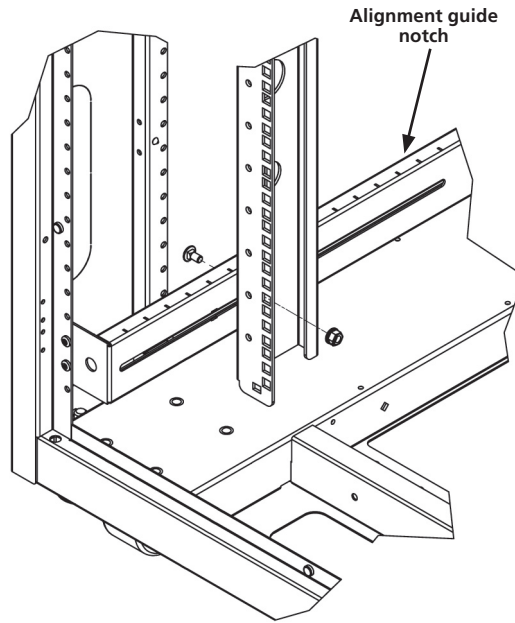


Figure 3-8. Adjusting the vertical mounting rails.

Rails are attached using a sliding nut and $\frac{1}{4}$ -20 hex head bolt. Loosen both top and bottom bolts, using a $\frac{3}{8}$ " socket set, then adjust the rails front to back using the alignment guide notches shown in Figure 3-8. Rackmount units (RU) are marked on rails for easy equipment mounting. Round cable pass through and vertical and horizontal cable tie down slots are provided on side of rails.

3.7 Bottom Panel

Figure 3-9 shows the Cabinet's bottom panel.

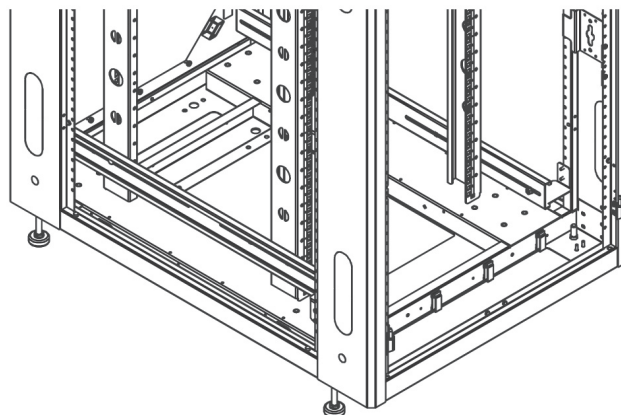


Figure 3-9. Bottom panel.

3.8 Power Strip Mounting

These universal power strip brackets allow you to mount a power distribution unit (PDU) with button mounting as shown in Figure 3-10.

1. Measure the required mounting distance top to bottom.
2. Install the brackets.
3. Install the power strip.

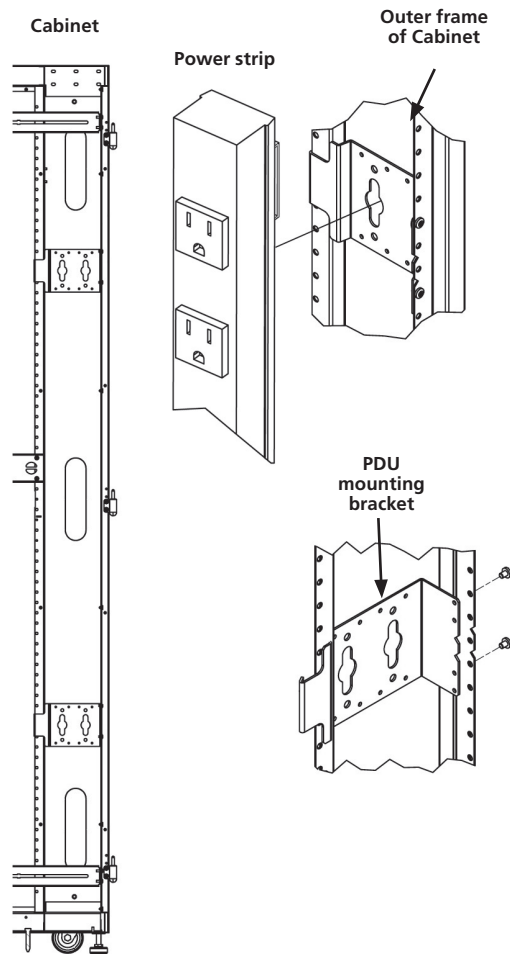


Figure 3-10. Mounting a power strip.

3.9 Baying Kit

Use the kit components shown in Figure 3-11 to link two cabinets together.

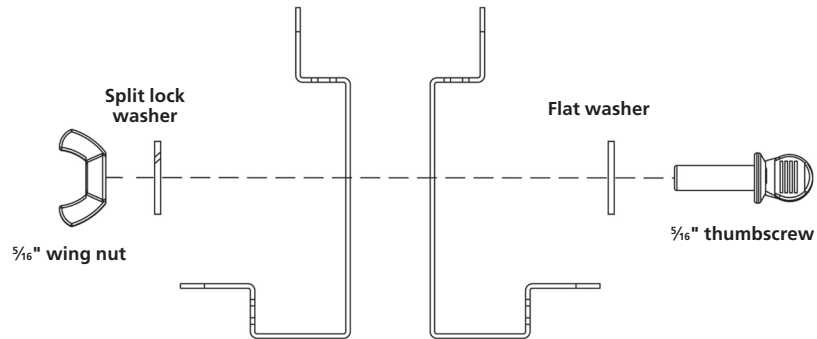


Figure 3-11. Baying kit components.